UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/667,383	09/23/2003	Jong-Hyun Yoon	0630-1845P	1937

2292   7590   02/26/2008
BIRCH STEWART KOLASCH & BIRCH
PO BOX 747
FALLS CHURCH, VA 22040-0747

EXAMINER
SCHNURR, JOHN R

ART UNIT	PAPER NUMBER
2623	

NOTIFICATION DATE	DELIVERY MODE
02/26/2008	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mailroom@bskb.com

PTOL-90A (Rev. 04/07)

	Application No.	Applicant(s)
	10/667,383	YOON, JONG-HYUN
Office Action Summary	Examiner	Art Unit	
	John R. Schnurr	2623	

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on <u>04 December 2007</u>.

2a) ☒ This action is **FINAL**.   2b) ☐ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) <u>2-18</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) <u>2-18</u> is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☒ The drawing(s) filed on <u>23 September 2003</u> is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☒ All   b) ☐ Some *   c) ☐ None of:

      1. ☒ Certified copies of the priority documents have been received.

      2. ☐ Certified copies of the priority documents have been received in Application No. _____.

      3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

DETAILED ACTION

1.   This Office Action is in response to the Amendment After Non-Final Rejection·

filed 12/04/2007. Claims 2-18 are pending and have been examined.

Response to Arguments

2.   Applicant's arguments filed 12/04/2007 have been fully considered but they are

not persuasive.

In response to applicant's argument (Remarks page 11 paragraphs 2-3) that

Giammaressi (US 7,086,077) does not teach comparing "transmission time" of the

entire A/V stream and A/V stream "transmission time" according to a reproduction

capability of the server to determine if the A/V stream can be output, the examiner

respectfully disagrees. Giammaressi clearly teaches determining the total load on at

least one of the video server resources, including data storage, it is then determined if

the introduction of the newly requested video stream would exceed the bandwidth limit

of the device, column 6 lines 14-44.

In response to applicant's argument (Remarks page 11 paragraph 4 to page 12

paragraph 1) that there is "no proper incentive" to modify Giammaressi with Goldthwaite

(US PG-PUB 2003/0154480), the examiner respectfully disagrees. Both Giammaressi

and Goldthwaite teach networks for communicating digital data. Giammaressi states

any network may be used in the disclosed invention, column 5 lines 8-10. Goldthwaite

discloses a type of network being a home network.

In response to applicant's argument (Remarks page 12 paragraph 2) that the

examiner's conclusion of obviousness is based upon improper hindsight reasoning, it

must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

In response to applicant's argument (Remarks page 12 paragraph 4 to page 13 paragraph 1) that Bleidt (US 5,671,377) is not incorporated in its entirety by Giammaressi, the examiner respectfully disagrees. Giammaressi, column 4 lines 13-20, clearly states:

> U.S. Pat. No. 5,671,377 for SYSTEM FOR SUPPLYING STREAMS OF DATA TO MULTIPLE USERS BY DISTRIBUTING A DATA STREAM TO MULTIPLE PROCESSORS AND ENABLING EACH USER TO MANIPULATE SUPPLIED DATA STREAM, issued Sep. 23, 1997, which is incorporated herein by reference in its entirety. In this manner, disk read latency is reduced to provide greater system throughput.

Because Bleidt is incorporated by Giammaressi the listing of Giammaressi in both the rejection summary and Form PTO-892 inherently includes Bleidt. There is no requirement in the MPEP for the examiner to cite incorporated references relied upon in the summary of the rejection and to list it in the form 892. Note that the previous Office Action clearly provided citations from the incorporated reference Bleidt. Furthermore, the Bleidt reference is readily available to applicant just like any other reference of record. However, to clarify the record the examiner has now provided the Bleidt reference on form 892.

In response to applicant's argument (Remarks page 13 paragraph 2) that Bleidt

has nothing to do with Giammaressi's invention, the examiner respectfully disagrees.

Giammaressi clearly states Bleidt is incorporated by reference in its entirety, column 4

lines 10-20.

In response to applicant's argument (Remarks page 14 paragraphs 1-2) that the

modification of Giammaressi, Goldthwaite and Seed (US PG-PUB 2006/0015574) by

Lam (US 6,917,569) is improper because the base reference combination never

discloses managing a disk array storage device, the examiner respectfully disagrees.

Giammaressi incorporates by reference Bleidt, which discloses managing a disk array

storage device.

In response to applicant's argument (Remarks page 14 paragraphs 1-2) that the

modification of Giammaressi, Goldthwaite and Seed by Bachmat (US 6,189,071) is

improper because "managing resources in a disk array storage device has nothing

whatsoever to do with judging whether A/V streams can be output to a user", the

examiner respectfully disagrees. Giammaressi incorporates by reference Bleidt, which

discloses managing a disk array storage device.

Claim Rejections - 35 USC § 103

3.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

4.   Claims **2-4, 8 and 11-18** are rejected under 35 U.S.C. 103(a) as being

unpatentable over **Giammaressi (US Patent 7,086,077)** in view of **Goldthwaite et al.**

(US Patent Application Publication 2003/0154480), herein Goldthwaite, and further in

view of **Seed et al. (US Patent Application Publication 2006/0015574)**, herein Seed.

> Consider **claim 2**, Giammaressi clearly teaches a method for outputting A/V
> streams onto a screen in response to a user's request by a network which
> includes a server for outputting audio/video streams and plural renderers
> connected to the server through a network, **(Fig. 1)** comprising:
>
>> a step in which a renderer connected to a server requests A/V streams;
>> **(Fig. 2 Step 208, column 6 lines 14-15)**
>>
>> a step in which the server judges whether A/V streams can be outputted in
>> response to the request from the renderer; **(Fig. 2 Step 214, column 6
>> lines 30-31)**
>>
>> a step in which the server provides the A/V streams to the renderer
>> sequentially or simultaneously if the A/V stream can be outputted, **(Fig. 2
>> Step 222)**
>>
>> in the step of judging whether A/V streams can be outputted, the server
>> compares transmission time of entire A/V streams and A/V stream
>> transmission time according to a defined reproduction capability of the
>> server required for reproducing A/V streams, and then judges whether the
>> A/V streams can be outputted. **(Fig. 2: At step 210 the bandwidth
>> required to transmit the requested program is determined, column 6
>> lines 14-18. At step 214 the required bandwidth is compared to the
>> bandwidth available from the server resources, column 6 lines 24-44
>> Giammaressi.)**
>
> Giammaressi further teaches the network may be any conventional broadband
> network. **(column 5 lines 8-10)**
>
> However, Giammaressi does not explicitly teach the network being a home
> network.
>
> In an analogous art, Goldthwaite, which discloses a system for distributing media
> from a server, clearly teaches a home network. **([0024])**

Because both Giammaressi and Goldthwaite teach methods of transferring A/V data over a network, it would have been obvious to one of ordinary skill in the art to substitute the home network of Goldthwaite into the system of Giammaressi to achieve the predictable result of transferring A/V data from the server to a client.

Giammaressi combined with Goldthwaite further teaches denying the subscriber access to the A/V data if insufficient bandwidth is detected. **(column 7 lines 2-8 Giammaressi)**

However, Giammaressi combined with Goldthwaite does not explicitly teach outputting a server unavailable message to the render.

In an analogous art, Seed, which discloses a system for distributing media from a server, clearly teaches outputting an unavailable message if the server judges that the A/V streams can not be outputted. **([0029])**

Therefore, at the time the invention was made, it would have been obvious to one with ordinary skill in the art to modify the system of Giammaressi combined with Goldthwaite by outputting an unavailable message, as taught by Seed, for the benefit of notifying the user that a particular content is unavailable.

Consider **claim 3**, Giammaressi combined with Goldthwaite and Seed, as in claim 2, clearly teaches if the server's transmission time is slower than the defined transmission time, the server transfers server unavailableness message to the renderer. **([0029] Seed)**

Consider **claim 4**, Giammaressi combined with Goldthwaite and Seed, as in claim 2, clearly teaches the A/V stream transmission time is time taken for the header to simultaneously read A/V streams stored in a storing medium and output them. **(Fig. 1: The delivery rates of the read circuitry of the storage unit 114-1 are taken into account, column 3 lines 41-45 and column 6 lines 24-29 Giammaressi. The storage device utilizes mechanical head movements, column 2 lines 44-46 Bleidt et al. US Patent 5,671,377, which is incorporated in its entirety in Giammaressi.)**

Consider **claim 8**, Giammaressi combined with Goldthwaite and Seed, as in claim 2, clearly teaches in the step of judging whether A/V streams can be outputted, **(Fig. 2: Step 214 Giammaressi)** a reproduction processing capability of the server including a CPU and a memory is judged. **(Fig. 1: The determination is made with respect to the capabilities of video server resources, which includes Information server 108, column 6 lines 24-26 Giammaressi. The information server 108 contains CPU 110 and memory 112, column 2 lines 51-54 Giammaressi.)**

Consider **claim 11**, Giammaressi combined with Goldthwaite and Seed, as in claim 2, clearly teaches the server is a medium reproducing unit for reproducing an optical recording medium, a hard disk medium or a medium including the optical recording medium and the hard disk medium. **(Fig. 1: Data storage 114 may be a magnetic disk drive or an optical disk drive, column 3 lines 2-7 Bleidt et al. US Patent 5,671,377, which is incorporated in its entirety in Giammaressi.)**

Consider **claim 12**, Giammaressi combined with Goldthwaite and Seed, as in claim 2, clearly teaches the medium reproducing unit reads A/V streams stored in certain positions of the recording medium through at least one or more headers performing a mechanical position movement. **(The storage device records information in "block-serial" form and utilizes mechanical head movements, column 1 lines 40-45 and column 2 lines 44-46 Bleidt et al. US Patent 5,671,377, which is incorporated in its entirety in Giammaressi.)**

Consider **claim 13**, Giammaressi combined with Goldthwaite and Seed, as in claim 2, clearly teaches the renderer is a display unit for outputting A/V streams provided from the server on a screen. **(Fig. 1 display device 140, column 5 lines 23-27 Giammaressi.)**

Consider **claim 14**, Giammaressi combined with Goldthwaite and Seed, as in claim 2, clearly teaches the home network is a cable communication network on the basis of Ethernet or home PNA, IEEE1394. **([0026] Goldthwaite)**

Consider **claim 15**, Giammaressi combined with Goldthwaite and Seed, as in claim 2, clearly teaches the home network is a wireless communication network on the basis of a bluetooth, Wireless1394, HomeRF. **([0026] Goldthwaite)**

Consider **claim 16**, see claim 4.

Consider **claim 17**, see claim 3.

Consider **claim 18**, see claim 2.

5.   Claims **6 and 7** are rejected under 35 U.S.C. 103(a) as being unpatentable over

Giammaressi (US Patent 7,086,077) in view of **Goldthwaite et al. (US Patent**

Application Publication 2003/0154480) and further in view of **Seed et al. (US Patent**

Application Publication 2006/0015574) and further in view of **Lam et al. (US Patent**

6,917,569), herein Lam.

Consider **claim 6**, Giammaressi clearly teaches a method for outputting A/V streams onto a screen in response to a user's request by a network which includes a server for outputting audio/video streams and plural renderers connected to the server through a network, **(Fig. 1)** comprising:

a step in which a renderer connected to a server requests A/V streams; **(Fig. 2 Step 208, column 6 lines 14-15)**

a step in which the server judges whether A/V streams can be outputted in response to the request from the renderer; **(Fig. 2 Step 214, column 6 lines 30-31)**

a step in which the server provides the A/V streams to the renderer sequentially or simultaneously if the A/V stream can be outputted, **(Fig. 2 Step 222)**

in the step of judging whether A/V streams can be outputted, the server compares transmission time of entire A/V streams and A/V stream transmission time according to a defined reproduction capability of the server required for reproducing A/V streams, and then judges whether the A/V streams can be outputted. **(Fig. 2: At step 210 the bandwidth required to transmit the requested program is determined, column 6 lines 14-18. At step 214 the required bandwidth is compared to the bandwidth available from the server resources, column 6 lines 24-44 Giammaressi.)**

Giammaressi further teaches the network may be any conventional broadband network. **(column 5 lines 8-10)**

However, Giammaressi does not explicitly teach the network being a home network.

In an analogous art, Goldthwaite, which discloses a system for distributing media from a server, clearly teaches a home network. **([0024])**

Because both Giammaressi and Goldthwaite teach methods of transferring A/V data over a network, it would have been obvious to one of ordinary skill in the art to substitute the home network of Goldthwaite into the system of Giammaressi to achieve the predictable result of transferring A/V data from the server to a client.

Giammaressi combined with Goldthwaite further teaches denying the subscriber access to the A/V data if insufficient bandwidth is detected. **(column 7 lines 2-8 Giammaressi)**

However, Giammaressi combined with Goldthwaite does not explicitly teach outputting a server unavailable message to the render.

In an analogous art, Seed, which discloses a system for distributing media from a server, clearly teaches outputting an unavailable message if the server judges that the A/V streams can not be outputted. **([0029])**

Therefore, at the time the invention was made, it would have been obvious to one with ordinary skill in the art to modify the system of Giammaressi combined with Goldthwaite by outputting an unavailable message, as taught by Seed, for the benefit of notifying the user that a particular content is unavailable.

Giammaressi combined with Goldthwaite and Seed further teach the bandwidth available from the server resources includes the read time of data from the storage units. **(column 3 lines 41-45 and column 6 lines 24-29 Giammaressi)**

However, Giammaressi combined with Goldthwaite and Seed does not explicitly teach determining the read time from the storage unit based on a distance between two memory locations.

In an analogous art, Lam, which discloses a system for accessing data from a physical disk storage device, clearly teaches determining seek times based the distance between two memory locations. **(column 3 lines 2-3)**

Therefore, at the time the invention was made, it would have been obvious to one with ordinary skill in the art to modify the system of Giammaressi combined with Goldthwaite and Seed by determining the transfer rate based on the distance between memory locations, as taught by Lam, for the benefit of providing dynamic disk allocation based on actual usage (see column 2 lines 64-65 Lam.)

Consider **claim 7**, Giammaressi combined with Goldthwaite, Seed and Lam, as in claim 6, clearly teaches the server judges a time point where the overall transfer rate for the current reproduction becomes slower than the predetermined transfer rate, **(column 7 lines 2-8 Giammaressi)** and transfers the server unavailableness message sequentially or simultaneously to connected renderers. **([0029] Seed)**

6.   Claims **5 and 9** are rejected under 35 U.S.C. 103(a) as being unpatentable over

Giammaressi (US Patent 7,086,077) in view of **Goldthwaite et al. (US Patent**

Application Publication 2003/0154480) and further in view of **Seed et al. (US Patent**

Application Publication 2006/0015574), as applied to claim 2 above, and further in

view of **Bachmat (US Patent 6,189,071)**.

> Consider **claim 5**, Giammaressi combined with Goldthwaite and Seed, as in
> claim 2, clearly teaches the stream transmission time includes the read time of
> data from the storage units. **(column 3 lines 41-45 and column 6 lines 24-29
> Giammaressi)**
>
> However, Giammaressi combined with Goldthwaite and Seed, as in claim 2,
> does not explicitly teach the A/V stream transmission time signifies total amount
> of time obtained by adding the a seek time taken for the header to move to an
> address where the A/V stream is positioned, a head activation time taken for the
> header to select a track in which the A/V stream is stored, a rotation latency time
> taken for the header to be positioned at a desired sector, and a time taken for the
> A/V stream read through the header to be transferred to the memory.
>
> In an analogous art, Bachmat, which discloses a system for accessing data from
> a physical disk storage device, clearly teaches the A/V stream transmission time
> signifies total amount of time obtained by adding the a seek time taken for the
> header to move to an address where the A/V stream is positioned, a head
> activation time taken for the header to select a track in which the A/V stream is
> stored, a rotation latency time taken for the header to be positioned at a desired
> sector, and a time taken for the A/V stream read through the header to be
> transferred to the memory. **(column 11 lines 45-49)**
>
> Therefore, at the time the invention was made, it would have been obvious to
> one with ordinary skill in the art to modify the system of Giammaressi combined
> with Goldthwaite and Seed, as in claim 2, by determining the transfer time based
> on the sum of the seek time, latency times and memory transfer times, as taught
> by Bachmat, for the benefit of providing dynamic disk allocation based on actual
> usage (see column 3 lines 1-7 Bachmat.)
>
> Consider **claim 9**, Giammaressi combined with Goldthwaite and Seed, as in
> claim 2, clearly teaches in the step of judging whether A/V streams can be

outputted, the number of A/V streams that can be finally outputted is judged on the basis of the storage units bandwidth requirements and the server's reproduction processing capability, **(column 3 lines 41-45 and column 6 lines 24-29 Giammaressi)** in order to determine whether to transfer **(column 7 lines 2-8 Giammaressi)** the server unavailableness message. **([0029] Seed)**

However, Giammaressi combined with Goldthwaite and Seed, as in claim 2, does not explicitly teach the storage units bandwidth requirements include the header movement speed, header reading speed.

In an analogous art, Bachmat, which discloses a system for accessing data from a physical disk storage device, clearly teaches the storage units bandwidth requirements include the header movement speed, header reading speed. **(column 10 lines 47-52)**

Therefore, at the time the invention was made, it would have been obvious to one with ordinary skill in the art to modify the system of Giammaressi combined with Goldthwaite and Seed, as in claim 2, by determining the transfer time based on the sum of the seek time, latency times and memory transfer times, as taught by Bachmat, for the benefit of providing dynamic disk allocation based on actual usage (see column 3 lines 1-7 Bachmat.)

7. Claim **10** is rejected under 35 U.S.C. 103(a) as being unpatentable over

Giammaressi (US Patent 7,086,077) in view of **Goldthwaite et al. (US Patent**

Application Publication 2003/0154480) and further in view of **Seed et al. (US Patent**

Application Publication 2006/0015574), as applied to claim 2 above, and further in

view of **Brown (US Patent 5,822,530)**.

Consider **claim 10**, Giammaressi combined with Goldthwaite and Seed, as in claim 2, clearly teaches in the step of outputting the server unavilableness message, if some plural renderers are additionally connected to the server and request A/V streams, the A/V streams are transferred from the server to the renderers in order of the plural renderers **(The system includes multiple set-top terminals, column 2 line 65 to column 3 line 1 Giammaressi.)** stream transmission request. **(Fig. 2: After allowing a video stream to be transmitted in step 216 the server returns to step 208 to wait for another programming request, the server processes each request before addressing a subsequent request, column 6 lines 30-44 Giammaressi.)**

Giammaressi combined with Goldthwaite and Seed, as in claim 2, further teaches the server outputs the server unavailableness message to a renderer, which has requested the A/V streams. **([0029] Seed)**

However, Giammaressi combined with Goldthwaite and Seed, as in claim 1, does not explicitly teach from a time point when server judges transmission of audio/video streams is not possible the server denies the video requests.

In an analogous art, Brown, which discloses a system for determining if video-on-demand requests can be granted, clearly teaches from a time point when server judges transmission of audio/video streams is not possible the server denies the video requests. **(If the VOD customer count reaches its maximum the video request is denied, column 6 lines 20-24.)**

Therefore, at the time the invention was made, it would have been obvious to one with ordinary skill in the art to modify the system of Giammaressi combined with Goldthwaite and Seed, as in claim 2, by denying video requests from a time point when the server judges transmission of video streams is not possible, as taught by Brown, for the benefit of preventing system resources from being constrained (see column 2 lines 46-61 Brown).

8.   Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of
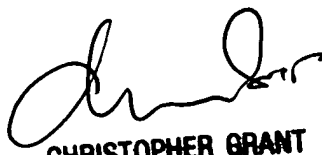
the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John R. Schnurr whose telephone number is (571) 270-1458. The examiner can normally be reached on Monday - Friday, 7:30am to 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christopher Grant can be reached on (571) 272-7294. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JRS

CHRISTOPHER GRANT
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600